ABSTRACT

A compensation data table 304 generates baseband signal nonlinear characteristic information. A determination section 305 determines from measured power whether power is on an upward trend or on a downward trend. An IM unbalance compensation computation section 306 generates an unbalance IM characteristic so that an amplitude component and phase component when power is identical differ when power is on an upward trend and when power is on a downward trend, and generates a compensation signal of a compensation characteristic that has an amplitude component and phase component that are symmetrical with the generated unbalance IM characteristic with respect to amplitude component and phase component fixed values when there is a linear characteristic. A complex multiplication section 307 combines the baseband signal with the compensation signal. An amplifier 312 amplifies the baseband signal and also suppresses distortion components generated during amplification by means of the compensation signal. By this means, distortion components in a state of lower/upper unbalance can be suppressed with high precision.